UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,593	04/28/2000	Samuel N. Zellner	BS99-186	3134

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ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 09/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any .earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 28, 2000*

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17 and 20-31* is/are rejected.

7) ☒ Claim(s) *18 and 19* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *Apr 28, 2000* is/are a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examine

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some* c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *4*

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

1.   The application of Zellner et al. for the "Method for dynamic multi-level pricing

for wireless communications according to quality of service" filed 04/28/2000 has been

examined. This application is a continuation in part of Application No. 08/903,534 filed

on July 30, 1997 is now US Patent 6,069,882. The preliminary amendment has been

entered and made of record. Claims 1-36 are pending in the application.

Specification

2.   The disclosure is objected to because of the following informalities:

The status of the related application US application No. 08/903,534 filed on July

30, 1997 need to be updated. This application is now US Patent No. 6,069,882.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37

CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

5.   Claims 1-8, 12-17 and 20-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Begeja (US#6,175,621), in view of Kilkki et al. (US#6,421,335).

       With respect to claims 1-2 and 20-31, both Begeja and Kilkki et al. disclose

method and system for setting a priority level of a call according to the essential features

of the claims. Begeja teaches in Fig. 3 a flow diagram illustrated a process for providing

dynamically changing a call priority level, comprising the steps of providing a selection

of a plurality of priorities available for transmitting a wireless communication transaction

on a wireless network (Col. 1, lines 63 plus); and charging a user an amount for the

wireless communication transaction at a price corresponding to the priority to be selected

(Col. 3, lines 56 plus). However, Begeja does not disclose expressly wherein the

transaction of lower priority are temporarily discontinued in favor of higher priority

transactions when network capacity reaches a predetermined level. In the same field of

the endeavor, Kilkki et al. discloses a system and method for integrating a priority-based

quality of service in CDMA communication systems that implement data packet

transmission, in order to effectively allocate radio resources. Data packet transfers are

selectively allocated over a wireless interface operating under a Code Division Multiple

Access (CDMA) protocol. A nominal bit rate is established for each user desiring access

to the CDMA interface. A relative packet priority is calculated for each of the data

packets based on an actual bit rate at the source of the CDMA interface and the

established nominal bit rate. An allowable packet priority is calculated for the CDMA

interface based on a signal-to-noise ratio of the CDMA interface, and those of the data

packets having a relative packet priority greater than or equal to the allowable packet

priority of the CDMA interface are transmitted across the CDMA interface. The

invention allows for differentiation between users and their corresponding user priority,

thereby allowing users to pay more for a higher level of service (See Fig. 4 and the

Abstract). Kilkki further teaches in Fig. 12 a flow diagram of a process for selectively

allocating data packet transfers over a wireless interface operating under a CDMA

protocol, in which the transactions of lower priority are temporarily discontinued in favor

of higher priority transactions when network capacity reaches a predetermined level (Col.

16, lines 4 plus). It's noted that In assigning priority among remote stations, it may be

desirable to distinguish the remote stations according to the type of data service being

provided. For example, a pricing structure can be established for different data

transmission services. Higher priority is given to those services for which a premium

price is charged. Through the pricing structure, the user on each remote station can

determine, individually, the priority and, therefore, the type of service the user will receive. The willingness to pay a premium fee for the resource indicates a higher level of importance. In this case, a system which attempts to maximize revenue and customer satisfaction can transmit first to the premium remote station 6 even though the transmission requires more resource.

Regarding claims 3-8, Kilkki discloses the selection of the plurality of priorities provided (*i.e., voice, E-mail, data*) is predetermined by the network according to the transaction type (i.e., *voice, E-mail or data*) in order to maximize capacity on the wireless network according to the time sensitivity of the type of transaction (*i.e., voice, E-mail or data*); and wherein transactions that require greater bandwidth for operation are of higher priority than transactions that require only an available bit rate for operation (Col. 6, lines 56 plus).

Regarding claims 12-17, Begeja further teaches a method and a system that allows a caller to dynamically change the priority level of a call so that the call is handled on a higher priority basis (according *to the subscriber plan*), in which a request is received from an originator of a call for changing a priority level of a call to one of a plurality of available call priority levels (purchase *allotment of transaction*). A message can be generated providing a menu for changing the priority level of the call having at least one available priority level with an associated charge rate for each available priority level (*transaction are charged according to the priority levels*) . When the priority level of the call is changed, the call can be advanced in a call holding queue, a lower priority call can

be interrupted or the call can be routed on a high-priority trunk capacity available for

high-priority calls (network *has capacity for transactions at the selected priority*) (Col. 1,

lines 63 plus and Col. 3, lines 23 plus).

One skilled in the art would have recognized the need for effectively and

efficiently allocation of limited capacity on a wireless network by pricing according to the

quality of service, and would have applied Kilkki's novel use of the priority-based quality

of service in CDMA communication into Begeja's teaching of dynamically changing a

call priority level setting. Therefore, It would have been obvious to a person of ordinary

skill in the art at the time of the invention was made to apply Kilkki's CDMA

communication system and method using priority-based SIMA quality of service class

into Begeja's priority call on busy with the motivation being to provide a method and

system for policing pricing wireless communications services on a wireless network

according to a selected transmission priority level.

6.   Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Begeja (US#6,175,621) in view of Kilkki et al. (US#6,421,335), as applied to claim 1

above, and further in view of Fichou et al. (US#5,790,522).

Regarding to claims 9-11, these claim differ from claim 1 above in that the claims

require the steps of selection of a plurality of priorities available for each of a plurality of

transaction types, wherein the selections of the plurality of priorities are subsets of

priorities that are pre-determined by the network and are pre-selected by the subscriber.

Fichou et al. discloses a congestion control at network node switch level in data packets

of different priorities, in which the predetermined priority level is assigned to real-time

data, including voice and video data. At the transmit adapter, the packet may enter one of

three possible queues, according to its priority. Three possible traffic priorities are

defined, real-time (RT), non-real-time (NRT), and non-reserved (NR). Typically, the

highest priority class (RT) is used to assigned to delay-sensitive data such as voice or

video data (*speech communication transaction*), the second class (NRT) is assigned to

delay-tolerant data such as interactive alphanumeric data (E-mail *transaction*), and the

third class (NR) is assigned to delay-insensitive data such as network control information

or low priority data operations such as bulk file transfers (file *transfer transaction*). The

real-time RT priority level may itself include traffic of different sub-priority levels (*subset

of priorities*). Upon request from the transmit line, a scheduler (27) services the transmit

adapter queues. More specifically, at every request from the transmit line for a new

packet, the scheduler (27) first looks at the real-time queue and services a real-time

packet stored in that queue. If the real-time queue is empty, then the scheduler (27) looks

at the non-real-time queue and services a non-real-time packet in that queue. The

non-reserved queue is serviced only when both real-time and non-real-time queues are

empty (Fig. 2, Col. 3, lines 52 plus).

One skilled in the art would have recognized the need for effectively and

efficiently allocation of limited capacity on a wireless network by pricing according to the

quality of service, and would have applied Fichou's subsets of priorities for performing

traffic congestion control, and Kilkki's novel use of the priority-based quality of service

in CDMA communication into Begeja's teaching of dynamically changing a call priority

level setting. Therefore, It would have been obvious to a person of ordinary skill in the

art at the time of the invention was made to apply Fichou's method and system for

performing traffic congestion control in a data communication network, and Kilkki's

CDMA communication system and method using priority-based SIMA quality of service

class into Begeja's priority call on busy with the motivation being to provide a method

and system for policing pricing wireless communications services on a wireless network

according to a selected transmission priority level.

Allowable Subject Matter

7.   Claims 18-19 are objected to as being dependent upon the rejected base claims, but

would be allowable if rewritten in independent form including all of the limitations of the

base claims and any intervening claims.

8.   The following is an examiner's statement of reasons for the indication of allowable

subject matter: The prior art of record fails to disclose or suggest the steps of receiving a

request to transmit the remainder of the wireless communication at a second selected

priority from the plurality of available priorities; transmitting portions of the wireless

communication transaction during periods of time when the network has capacity for

transaction at the second selected priority, until completion of the transaction; and

charging an amount for the remainder of the wireless communication transaction at a

price corresponding to the second selected priority, as specifically recited in the claimed

invention.

9.   Any comments considered necessary by applicant must be submitted no later than

the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The Summer et al. (US#5,857,018) is cited to show the automatic call distributor

with prioritization.

The Shaffer et al. (US#6,327,364) is cited to show the reducing resource

consumption by ACD systems.

The Sicher (US#5,570,411) is cited to show the call priority in a mobile

radiotelephone system.

The Garland et al. (US#5,812,656) is cited to show the reducing system for

providing prioritized connections in a public switched network.

The Tiedemann, Jr. et al. (US#6,335,922) is cited to show the reducing method

and apparatus for forward link rate scheduling.

The Galyas et al. (US#6,519,260) is cited to show the reduced delay priority for

comfort noise.

The Borella et al. (US#6,587,433) is cited to show the remote access server for

multiple service classes in IP networks.

The Bodnar (US#5,539,729) is cited to show the method for overload control in a

packet switch that processes packet streams having different priority levels.

The Dalal (US#6,321,093) is cited to show the reducing system and method for

controlling priority calls in a wireless network.

The Andersson et al. (US#6,434,380) is cited to show the dynamic negotiation of

resources for user equipment in wireless communications system.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to M. Phan whose telephone number is (703)305-1029. The

examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the

organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 305-9051, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Mphan.

08/26/2003